

REMARKS

In response to the official Office Action dated April 5, 2004, Applicants make the following comments.

Claims 1-7, 9, 10, 15-21 and 46-49 stand rejected under 35 U.S.C. § 112, first paragraph. Claim 1 has been amended to remove the objectionable language of “initiating.” Instead, it now requires “attempting and establishing” from onboard the wireless communication. This is specifically supported in the specification on page 8, lines 24-29.

Reconsideration of the rejection of Claims 1-3, 5-7, 9, 10 and 15-19 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,786,998 to Neeson et al. and Claims 4, 20, 21 and 46-49 further in view of Cowan, Swensen et al. and Ehrenberger et al. under 35 U.S.C. § 103 is hereby requested.

Claim 1 has been amended. Amended Claim 1 recites:

A method of transferring files between a computer onboard a train and remote stations comprising:

collecting one or more of event recorder data, train performance data and track data from onboard in files on the on-board computer;

determining onboard if a remote station is within communication range by one of determining onboard location of train and location of next remote station and transmitting a wireless query and monitoring for a response;

attempting and establishing from onboard wireless communication between the on-board computer and the remote station determined to be within communication range; and

determining onboard which of the files are new since last transmission, and transferring the new files to the remote station.

(Underlining reflects the Amendment; the bold emphasis has been added). In other words, *inter alia*, the present disclosure relates to a method involving **the collection of operational data** on a locomotive. After that, **on-board the locomotive**, it is determined whether a remote station is within communication range using one of two methods, and if it is within range, then **on-board the locomotive attempts and establishes** a wireless communication between its on-board computer and the remote station determined to be within range.

On the other hand, Neeson et al., as indicated by its title, is an apparatus and method for tracking, reporting and recording **equipment inventory** on a locomotive. An on-board

computer communicates with “intelligent devices” onboard the locomotive and builds a “Health Report” indicating the presence or absence of those “intelligent devices” and their status. This “Health Report” is transmitted to a wayside or base station 52, 54 along the edge of the track, and the “Health Report” subsequently is transmitted to a front end processor 46. As specifically indicated in column 8, lines 41-43 of Neeson et al., “the mobile communications package 12 monitors the on-board ‘intelligent devices’ and reports initial configuration and configuration changes to the front end processor 46.”

Applicants acknowledge that, regarding the method steps of Applicants’ Claim 1 dealing with the collection of data, the determination of which computer files are new since last transmission and the transferring of the new files to the remote station, there is no dispute in that both Neeson et al. and Applicants’ present disclosure teach those steps.

However, Applicants strongly assert that Neeson et al. does not disclose two of the **steps of Applicants’ Claim 1**, that is: “determining onboard if a remote station is within communication range by one of determining onboard location of train and location of next remote station and transmitting a wireless query and monitoring for a response” and “attempting and establishing from onboard wireless communication between the on-board computer and the remote station determined to be within communication range.”

In Neeson et al., there is no explicit disclosure that a determination is made onboard of whether a remote station is within range, much less by one of the two claimed methods. Neeson et al. specifically discloses that the invention “will not attempt to send equipment inventory information to a remote location if the locomotive is not in contact with the ground network of the stations.” (Column 5, lines 17-20.) It further states that in “attempting to transmit equipment identification information while the locomotive is out-of-range, the MCP may not be able to receive important emergency information from the dispatcher upon returning to contact with the ground network.” (Column 5, lines 28-32.) This section indicates that it only transmits information when it is in contact. It does not indicate or teach determining if the onboard station is within communication range. It only indicates whether they are in contact or communication.

The area noted by the examiner in column 7, line 63 through column 8, line 3 states:

The front end processor 46 may accurately track the location of any field unit 36 based on which base station 52 and 54 is being used to maintain radio contact with the field unit 36 via SSI (the signal strength indicator in ABNS) which compares the signal strength of the incoming signal to a full strength signal to

determine the distance between the field unit 36 and the receiving base station 52 and 54.

Thus, communication range is determined by the front end processor 46 from the incoming signals received by the base stations 52, 54.

Claims 5 and 6 have been incorporated into Claim 1 to indicate specifically two methods of determining onboard if a remote station is within communication range. To support the determining the location of the train and the location of the next station, the examiner cites the same section of column 7, line 63 through column 8, line 3. The area noted by the examiner for Claim 6 (namely, column 21, lines 42-47) states:

The ABNS component LMON will report loss of mobile contact along with the last base station with the highest SSI in contact with that mobile. LMON will also report acquired mobiles. The base network system already includes component LMON, and therefore that element of the ALERTS application will not be discussed further in this specification.

For the LMON, refer to column 7, lines 6-13, which indicates that the LMON is specifically at the front end processor 46. Thus, it is a log of what locomotive is not in contact at the front end processor 46, not onboard the locomotive. Thus, Neeson et al. cannot anticipate or make obvious the specific determining step of Claim 1.

Likewise, in Neeson et al., there is no explicit disclosure that the wireless communication between the on-board computer and the remote station determined to be within range is attempted and established from onboard the locomotive. The disclosure and description in Neeson et al. is that the ground network or remote stations are in control of communications with the locomotive. As stated in the rejection, Neeson et al. at column 7, lines 34-47 states:

Each base station 52 and 54 is preferably located alongside a railroad track, with the base stations being spaced apart along the length of the track such that as a field unit [i.e., a locomotive] 36 moves along the track, it remains in radio contact range of the nearest base station and is "passed off" to the next base station along the track. Hundreds of base stations are situated along railroad tracks throughout the railroad system, thus enabling field units 36 to remain in contact with a dispatcher 32 or customer service representative 35. In other words, the base stations 52 and 54 provide the interface from the ground network which connects the base stations 52 and 54 with the front end processor 46 and the radio frequency network which connects the base stations 52 and 54 and field units 36.

(Emphasis added). With respect to "passing off," it is the ground stations that keep continuous communication with the onboard computer. There are no base stations 52, 54 in combination with attempting, establishing and maintaining contact with the locomotive. The mere provision of a half duplex communication does not teach this limitation.

Therefore, based upon all of the above, it is clear that Neeson et al. does not disclose the method steps of Applicants' Claim 1, "determining onboard if a remote station is within communication range by one of determining onboard location of train and location of next remote station and transmitting a wireless query and monitoring for a response" and "attempting and establishing from onboard wireless communication between the on-board computer and the remote station determined to be within communication range." Thus, Claim 1, as amended, is considered allowable over Neeson et al., and such is respectfully requested.

Claims 2-4, 7, 9, 10, 12-21 and 46-49 depend from amended Claim 1 and are allowable for at least the same reasons as amended Claim 1, and such is hereby requested. Since Claim 1 is considered generic, Claims 12-14, as included above, should also be considered and be allowable, and such is hereby requested.

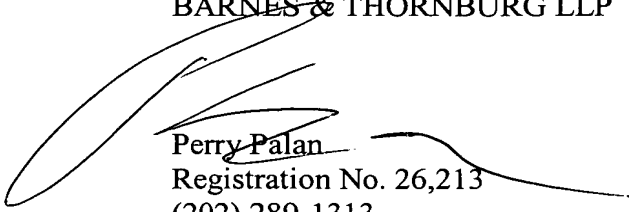
Also enclosed is an opposition filed July 12, 2004 in the European Patent Office for the corresponding European Patent 1,216,180. A translation will be submitted when available.

In view of all of the above, the Application is now deemed to be in condition for allowance and such is respectfully requested.

It is respectfully requested that, if necessary to effect a timely response, this paper be considered as a Petition for an Extension of Time sufficient to effect a timely response and that shortages in fees, if any, be charged, or any overpayment in fees credited, to the Account of Barnes & Thornburg, Deposit Account No. 02-1010 (509/35644).

Respectfully submitted,

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Enclosure

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended): A method of transferring files between a computer onboard a train and remote stations comprising:
collecting one or more of event recorder data, train performance data and track data from onboard in files on the on-board computer;
determining onboard if a remote station is within communication range by one of determining onboard location of train and location of next remote station and transmitting a wireless query and monitoring for a response ;
~~initiating attempting and establishing~~ from onboard wireless communication between the on-board computer and the remote station determined to be within communication range;
and
determining onboard which of the files are new since last transmission, and transferring the new files to the remote station.
2. (Original): A method according to claim 1, including determining whether the remote station has updates to be transferred and transferring the updates to the on-board computer.
3. (Original): A method according to claim 2, wherein the updates include one or more of software updates for the on-board computer, operational data and callbook that defines with which remote stations the onboard computer will initiate communication.
4. (Original): A method according to claim 2, wherein determining whether the remote station has updates to be transferred includes comparing the version in the on-board computer to the version in the remote station and transferring only the additions, changes, and deletions resulting between the comparison.
5. (Canceled)
6. (Canceled)
7. (Original): A method according to claim 1, wherein, after an interruption of wireless communication, file transfers may be resumed during one or more subsequent communication sessions until all files have been received successfully.
8. (Canceled)

9. (Previously Presented): A method according to claim 1, wherein the train includes plural event recorders and including transferring data from each of the event recorders to the on-board computer.

10. (Previously Presented): A method according to claim 1, wherein the train includes plural event recorders each being connected to a respective on-board computer; and

the method includes initiating wireless communication between the on-board computers and the remote station, and transferring event recorder data from each of the on-board computers to the remote station.

11. (Canceled)

12. (Withdrawn): A method according to claim 1, including transferring the files from the remote station to a simulator; operating the simulator with the transferred files; and adjusting parameters of the simulator until data of the simulator matches data from the file.

13. (Withdrawn): A method according to claim 12, wherein the parameters include one or more of grade resistance, curve resistance, rolling resistance, tractive effort of the train's locomotives, dynamic brake effort of the locomotives, pneumatic brake system parameters, and train weight.

14. (Withdrawn): A method according to claim 12, analyzing the data from the files on the simulator after adjusting of the parameters.

15. (Original): A method according to claim 1, including establishing communication between the remote station and a home base station; and determining what files have to be transferred and transferring the files.

16. (Original): A method according to claim 15, wherein the files to be transferred from the home base station to the remote station includes one or more of software updates for the remote station, software updates for the onboard computer, operational data for the onboard computer, and a callbook that defines with which remote stations the onboard computer will initiate communication.

17. (Original): A method according to claim 15, wherein the files to be transferred from the remote station to the home base include one or more of files received from the on-board computer and files including operation information of the remote station.

18. (Original): A method according to claim 17, wherein operational information includes one or more of: locomotives contacted, which software updates were transferred, which onboard computer files were received, and communication statistics.

19. (Original): A method according to claim 15 wherein communication is established between the remote station and the home base when one or more of remote station has new files from the on-board computer, home base has new software for the remote station or on-board computer, requested by user and according to a schedule.

20. (Original): A method according to claim 1, including establishing communication between two remote stations; and determining what files have to be transferred and transferring the files.

21. (Original): A method according to claim 20, establishing communication and transferring files between remote stations for all the remote stations in a subnet.

22-45. (Canceled)

46. (Original): A method according to claim 1, wherein one of the remote stations includes track data; and including transferring the track data to the on-board computer and subsequently transferring the track data from the on-board computer to another remote station.

47. (Original): A method according to claim 46, including displaying the track data on the train.

48. (Original): A method according to claim 46 wherein the track data includes one or more of signal aspect, crossing gate position, crossing occupancy status, and other trains in the vicinity.

49. (Original): A method according to claim 46 including correlating train performance data with track data.

50. (Canceled)